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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,519

06/17/2005

Frederic Berier

5669-1002

2864

22511

7590

12/23/2010

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EXAMINER

LAMPRECHT, JOEL

ART UNIT

PAPER NUMBER

3737

NOTIFICATION DATE

DELIVERY MODE

12/23/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/539,519	BERIER ET AL.	
	Examiner	Art Unit	
	JOEL M. LAMPRECHT	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15, and 19-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Drobot et al (US 6,091,067) in view of Dickensheets (US 6,154,305). Drobot et al disclose a scanning device with an optical bimorph including point source excitation fibers (Col 3 Line 45-65), capable of scanning in a field of view in two perpendicular directions at varying speeds (Col 4 Line 10-45, Col 7 line 10-Col 8 Line 40). Drobot et al also disclose micro-electro-mechanical system devices for moving optical devices along axes, a mobile point source, focus modification via MEMs or curvature variation (Col 7 Line 45-Col 9 Line 30), divergent beam focusing (Col 5 Line 50-Col 7 Line 40),

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the focusing field is within several tens of microns from the field of view (tables), fundamental and multi-mode point source(Col 5 Line 50-65), high numerical aperture optical elements and whereby the rapid line scanning device includes MEMs for moving the optical devices perpendicular to the optical axis (Col 5 Line 50-Col 6 Line 40, Col 7 Line 65-Col 8 Line 60).

Drobot et al disclose all that is listed above, but focus on a rapid-line system of measurement. Attention is directed to the teaching reference to Dickensheets which discloses a miniature confocal microscope capable of use with an endoscope comprising both rapid and slow column scanning devices for providing both (Col 6 Line 30-Col 7 Line 10). Dickensheets also discloses a detector and scan conversion system for producing and output image (Col 5 Line 35-Col 6 Line 45) and processing for production of fast, high resolution images of the anatomical structures interrogated. It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized both slow and rapid scanning systems like that of Dickensheets with the methods of confocal microscopy disclosed by Drobot et al for the purpose of providing a miniature micro-mechanical confocal microscopy device capable of a wide variety of scan speeds (Col 2 Line 15-30).

Claims 17-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Drobot et al (US 6,091,067) in view of Dickensheets (US 6,154,305) as applied to claim 1 above, and further in view of MacAulay et al (US 2003/0076571). Drobot et al in view of Dickensheets disclose what is listed above but fail to disclose a contact window index-matching outlet for contact-based matching. Attention is directed to the teaching

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reference to MacAulay et al which discloses a system whereby fluid matching at a light window is performed in order to carry out index matching at the targeted region in an endoscopy procedure (0100-0101). It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an index-matching system with the methods and systems of Drobot et al and Dickensheets for the purpose of optimizing the amount of light transmitted and received during the imaging procedure.

Claims 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drobot et al (US 6,091,067) in view of Dickensheets (US 6,154,305) as applied to claims 1 and 20 above, and further in view of Elsner et al (US 6,640,124 B2). Drobot et al in view of Dickensheets disclose what is listed above but fail to disclose a VCSEL type point source for use with the confocal system. Attention is then directed to the teaching reference to Elsner et al which discloses a VCSEL-based confocal microscopy head including detector elements (Col 6 Line 45-Col 7 Line 30). It would have been obvious to use either a VCSEL, array of VCSEL elements or any other light source within the systems of Drobot et al in view of Dickensheets for the purpose of facilitating microscopy on specific anatomical targets or particular foci of interrogation (Col 6 Line 45-55).

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Enclosed above is a rejection of the instant claims taking into account the requirements of 3mm head diameter and 30 mm length as required per amendment.

Conclusion

The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure includes Liang (US 7,113,651 B2) which discloses another method and system of miniature confocal microscopy.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL M. LAMPRECHT whose telephone number is (571)272-3250. The examiner can normally be reached on 8:30-5:00 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/
Supervisory Patent Examiner, Art
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JML